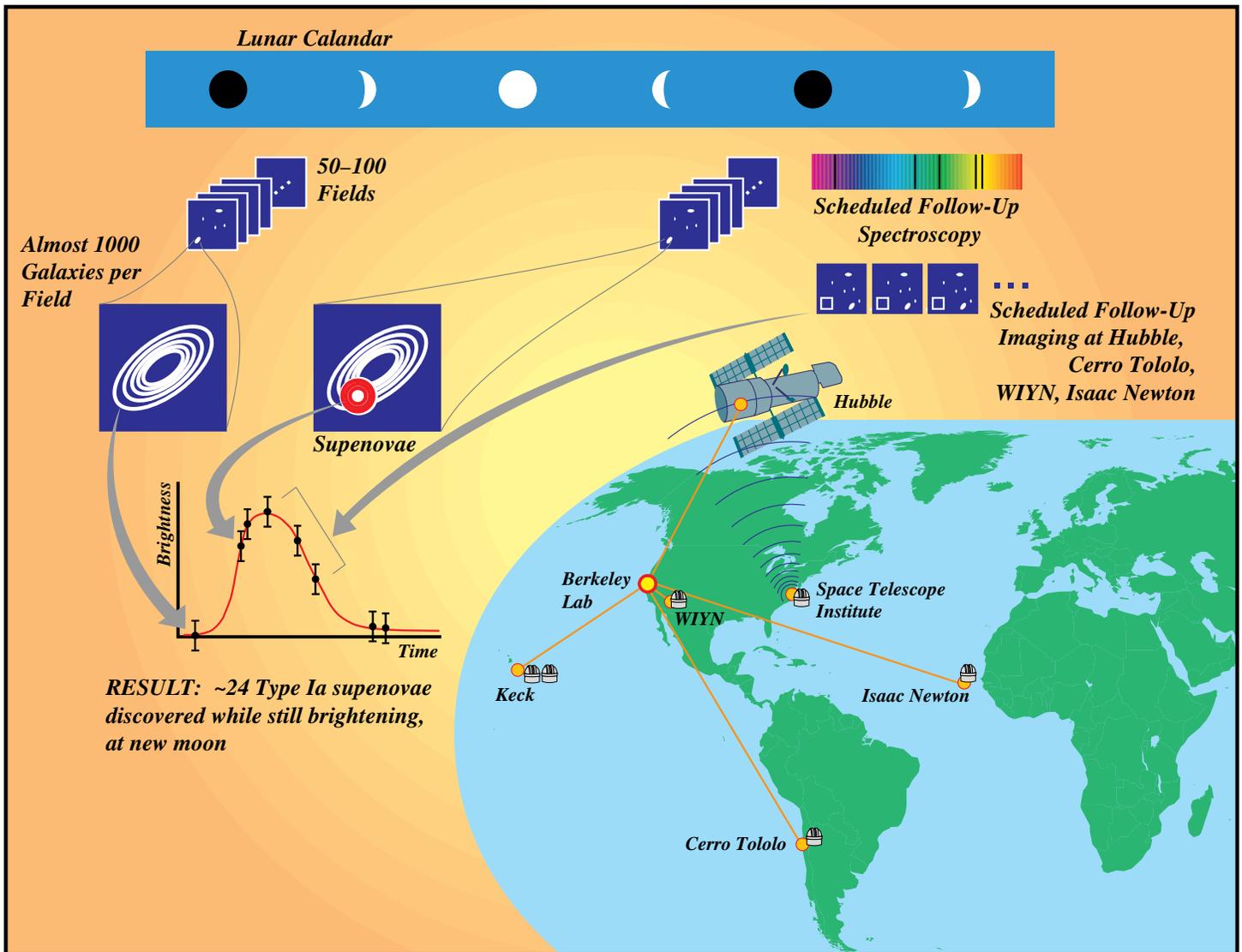


SUPERNOVAE RESEARCH



Perlmutter, et al., in *Thermonuclear Supernovae*, NATO ASI, v. 486 (1997)

We developed a strategy to guarantee a group of supernova discoveries on a certain date. Just after a new moon, we observe some 50 to 100 high-galactic latitude fields—each containing almost a thousand high-redshift galaxies—in two nights on the Cerro Tololo 4-meter telescope. We return three weeks later to observe the same fields, and then examine the images of all of the tens of thousands of galaxies. On average, some two dozen Type Ia supernovae will thus be discovered just before new moon—and while still brightening, since the three week time baseline is less than the rise time of a Type Ia supernova. We follow the supernovae, with spectroscopy at maximum light at the Keck telescope, and with photometry over the following two months at the CTIO, WIYN, INT, and (particularly for the highest redshifts) the Hubble Space Telescope.